



Abstract of the Disclosure

A device for the preparation of a plasma for producing ozone and/or oxygen ions in the air following the principle of dielectrically impeded discharge is disclosed. The device comprises: a) a flat, electrically insulating support (1, 7), the material thereof having a dielectric constant ϵ_r which is at least higher than 30 (that is, $\epsilon_r >$ thirty); b) an electrode (4) is placed on one of the main surfaces of the support (1, 7), c) at least one electrically insulating layer (2, 8) made of a dielectric material is placed on the other side of the support (1,7); d) the dielectric constant of the support (1, 7) and that of the insulating layer (2, 8) are different, e) an electrode (3, 10) made of an electrically conductive material is mounted an the insulating layer (2, 8), said electrode covering only partially the insulating layer (2, 8) and a high voltage of an AC generator is applied to both electrodes (3, 4).